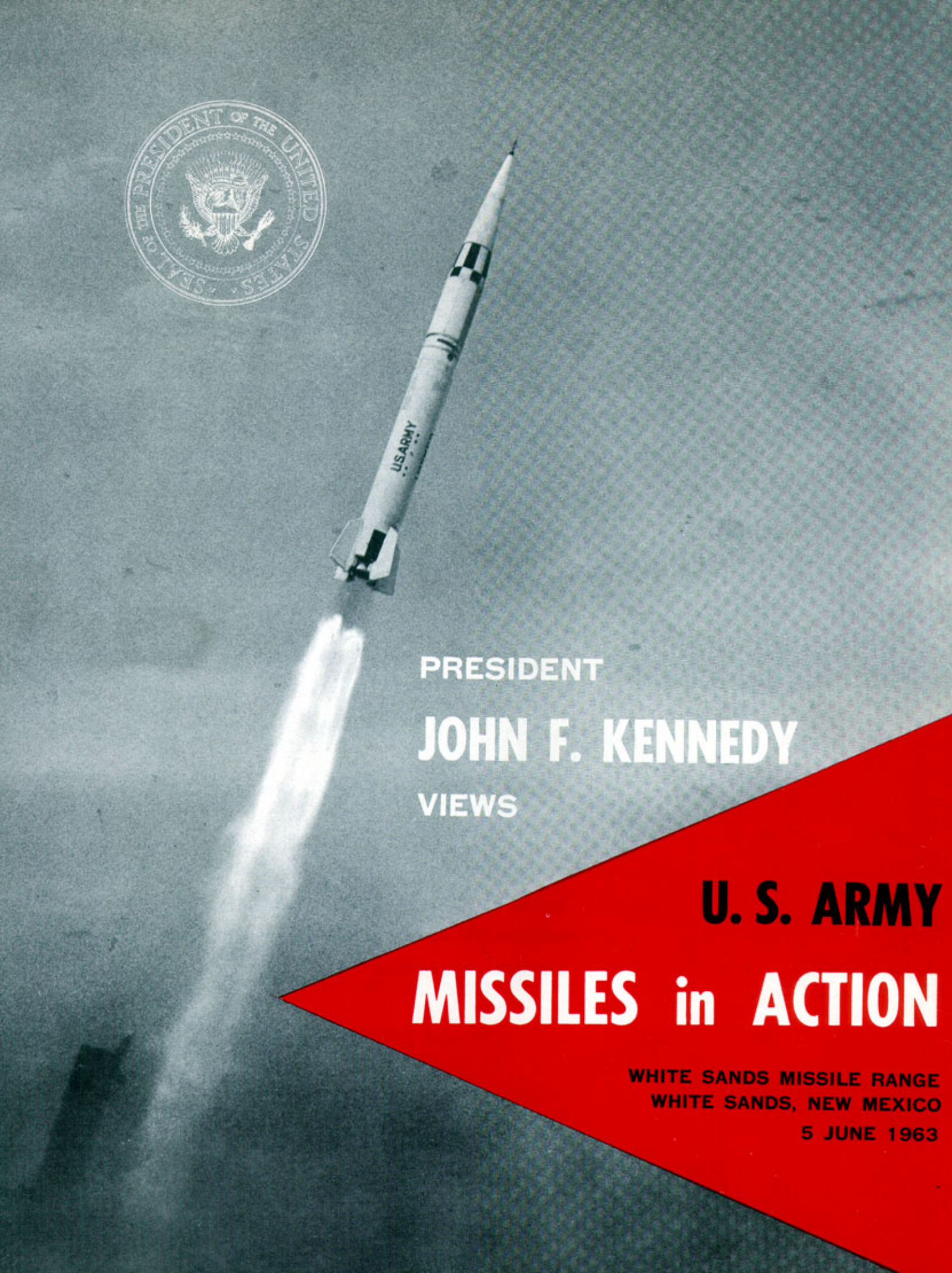


PRESIDENT

JOHN F. KENNEDY

VIEWS

U. S. ARMY

MISSILES in ACTION

WHITE SANDS MISSILE RANGE
WHITE SANDS, NEW MEXICO
5 JUNE 1963

PREPARED BY THE OFFICE CHIEF OF INFORMATION, DEPARTMENT OF THE ARMY

THE OCCASION

On 5 June 1963 the President and civilian and military dignitaries visited White Sands Missile Range to observe missile test firings by Army combat units. This brochure is a pictorial record of that visit.

CONTENTS

THE SOLDIER—KEY TO LANDPOWER

"I would emphasize, however, that the Army's fundamental strength derives even more from the worth and spirit and morale of its men than it does from any other factor. When the machines have been made and the materiel produced, it then devolves upon the American soldier to use these tools to defend the Nation. This is no ordinary task to be undertaken by ordinary men. The quality and spirit of the soldier comprise the ultimate measure of the Army's combat readiness."

CYRUS R. VANCE
SECRETARY OF THE ARMY

MAJOR GENERAL THORLIN'S WELCOME TO WHITE SANDS—

In welcoming the President and guests General Thorlin said,

"Mr. President, distinguished guests, ladies and gentlemen: I am sure that I speak for the people of White Sands and the nearby communities when I say that we are especially pleased to have you with us today. We will try our best to make your visit . . . pleasant as well as . . . interesting. . . .

"The missiles to be fired and demonstrated today are all operational types or are far along in the development phase. Most will be fired by tactical troop units. Each missile fired will be undergoing a flight test of one type or another.

"The range—the desert—in front of you appears serene and devoid of life. But this isn't so. In fact, that desert is in many respects a living desert. Behind the scenes, not seen by you, are many Army, Navy, and Air Force personnel—military, as well as civilian, performing a myriad of functions. They are at various work stations located from here to the northern extremity of the range, 100 miles over the horizon to your front. Their end objective is to provide data which missile engineers can use to make our missiles more efficient and effective.

"Some of these people have been gathering meteorological data. Some people will conduct the countdown and assure safe conduct of each launch and flight. Some will control the target drone aircraft. Some are out there waiting to track the missiles with giant radars, powerful telescopes, long range cameras, and other electronic and optical instruments. Still others are at various rendezvous in jeeps, trucks, and helicopters waiting to dash in and recover the fired missiles or portions thereof for postmortem examination or possible reuse. And others are standing by computers that quickly transform electronic impulses into . . . language understandable to the missile designer. So there's a lot going on that is not visible to us here in the stands."

"With this background, we're ready for the first demonstration. Again I say, we're proud and happy to have you with us today."

THE PRESIDENT ARRIVES, SPEAKS, AND VISITS

"General, Mr. Vice President, Senator Russell, Congressmen Morris and Montoya, Governor, ladies and gentlemen. I want to express a very warm appreciation to all of you for your generous welcome and for coming out to greet us.

"I think all of us who leave Washington, D.C., with all of its complexities, and all of its diverse views, and all of its areas of decision, get tremendously heartened by a visit to those of you who are working in the field; who can see, day-by-day, measurable progress which strengthens our country and those associated with it. This must give you the greatest possible satisfaction, because never in history has so much depended upon one people and I think never in history have one people been so willing to assume that responsibility.

"Here in this ancient part of the United States, settled before all the rest, where so much has happened in a concentrated period in the last 20 years, which has marked all the kinds of changes in war—in means of defense—and now the movement into outer space—and all of you are a vital part of it. What you do here, far away from Washington, far away from some of our great capitals, far away from the many countries which depend upon us, makes a significant difference to the security of our country and to those who depend upon us.

"That is an almost unique role to play, and I know that you feel the same sense of pride in your chance, in your time, in your day, to play a part in the life of this great Republic, as do all of us whose responsibilities are somewhat different. I want to express my thanks to all of you, we admire what you are doing, and, even more important, we are very grateful to all of you.

"Thank you."

Secretary of the Army, Cyrus R. Vance, greets the President upon his arrival at the firing site. In the background are the Honorable Jack M. Campbell, Governor of New Mexico and Major General J. Frederick Thorlin, commanding general of the White Sands Missile Range.

Approaching the assembled White Sands personnel with the President are left to right: Vice President Lyndon B. Johnson, Senator Thomas G. Morris, and the Honorable Fred Korth, Secretary of the Navy, Senator Joseph M. Montoya, Jack M. Campbell, Governor of New Mexico, and Major General Thorlin.

Listening to the President address the White Sands personnel are left to right: Senator Richard B. Russell of Georgia and Army Chief of Staff Earle G. Wheeler. In the right foreground is Major General Thorlin.

Maj. Gen. George V. Underwood and his assistant, Col. Eugene E. Surdyk, discuss last minute arrangements with White House Press Secretary, Pierre Salinger.

Maj. Gen. J. F. Thorlin and Dr. Carl A. Frische, president of Sperry Gyroscope, exchange remarks prior to the start of the program.

The Secretary of the Army, Cyrus R. Vance, and Army Chief of Staff, Earle G. Wheeler, discuss the sequence of events as the President arrives at site No. 1 for the first firing event of the day.

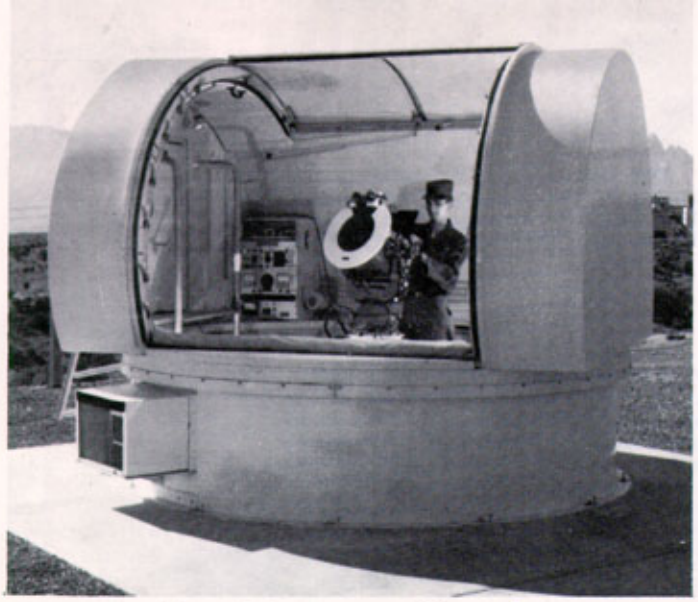
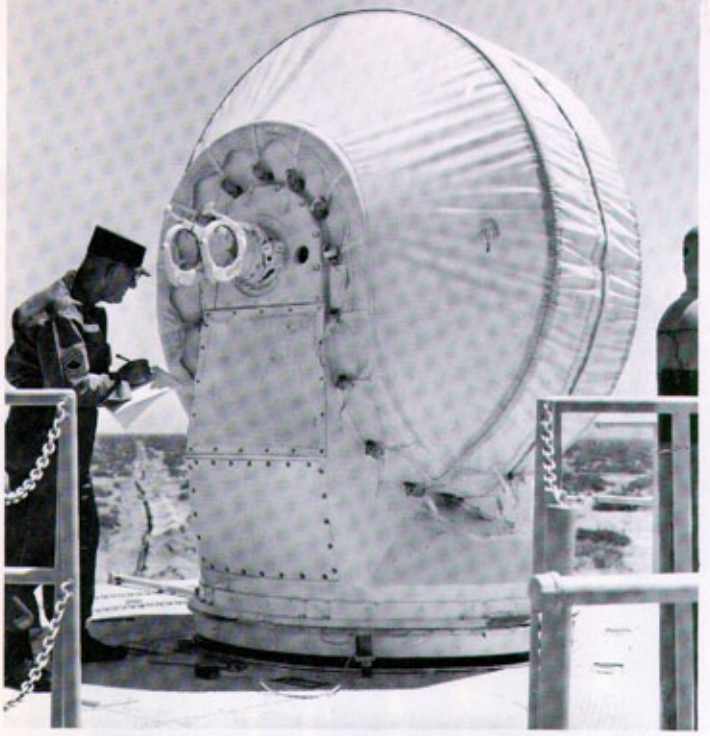


Photo Theodolite—Using stars as calibration points, operators of this instrument can measure within 1 or 2 feet the relative positions of objects at 100,000 feet traveling at orbital speeds.



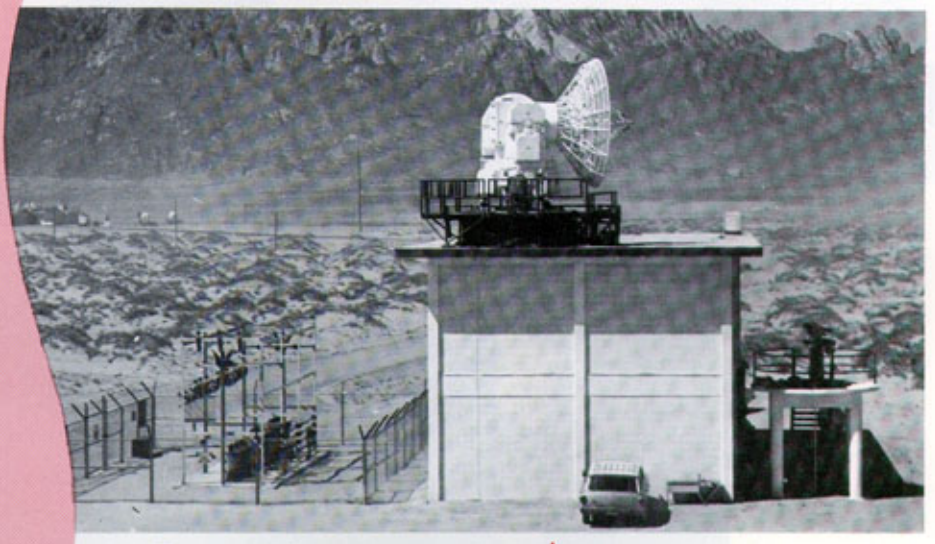
Missile Track Radar—This radar is used by the Army to track the Nike-Zeus anti-missile missile.

TESTING FACILITIES

Behind the thunder and the drama of the missile firing witnessed by the President lay the instrumentation equipment essential to the White Sands mission.

WHITE SANDS MISSILE RANGE

WHITE SANDS, NEW MEXICO



Range Radar Reflector—This powerful radar is used to track supersonic missiles.

Aerial view of the Zeus acquisition radar area showing transmitter facilities in the foreground and receiving facilities in background.

THE HONEST JOHN

- **TYPE:** Surface-to-surface
- **SPEED:** Supersonic
- **RANGE:** 12 miles
- **PROPULSION:** Solid propellant
- **WARHEAD:** Nuclear or conventional
- **GUIDANCE:** Free flight, ballistic
- **STATUS:** Operational

Following his arrival and address to post personnel the President was transported to launching site No. 1. After a briefing of the system capabilities, the President watched as an HONEST JOHN unit, obscured by dust at the moment of launch, fired a missile at the hillside 10 miles in the distance. A highly mobile, long range artillery rocket system, it is designed to provide close tactical fire support in ground combat operations.

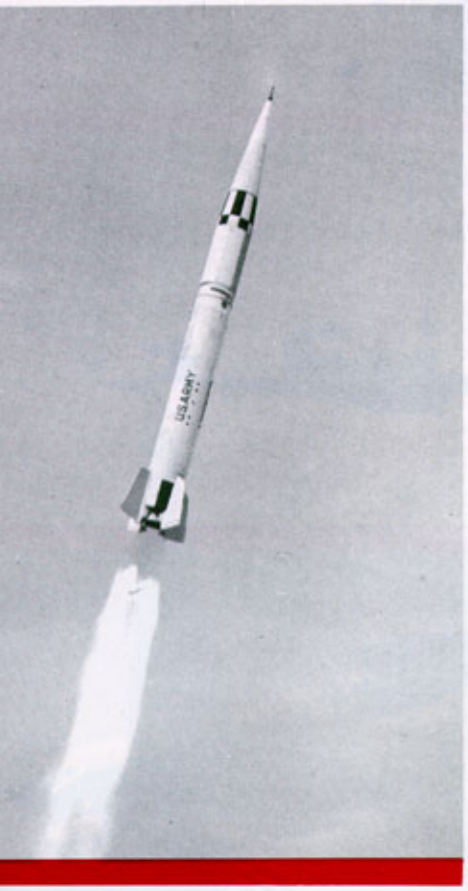
THE LITTLE JOHN

- **TYPE:** Surface-to-surface
- **SPEED:** Supersonic
- **RANGE:** Comparable to medium and heavy artillery
- **PROPULSION:** Solid propellant
- **WARHEAD:** Nuclear or conventional
- **GUIDANCE:** Free flight, ballistic
- **STATUS:** Operational

While the system and characteristics were being explained to the President a helicopter landed the highly mobile LITTLE JOHN. After the emplacement was completed a target was identified and a missile fired. The LITTLE JOHN is the Army's newest free flight rocket system. This 318 mm surface-to-surface rocket is used as medium or long-range artillery. It is 14½ feet in length and 12½ inches in diameter. LITTLE JOHN is designed for use by airborne troops.

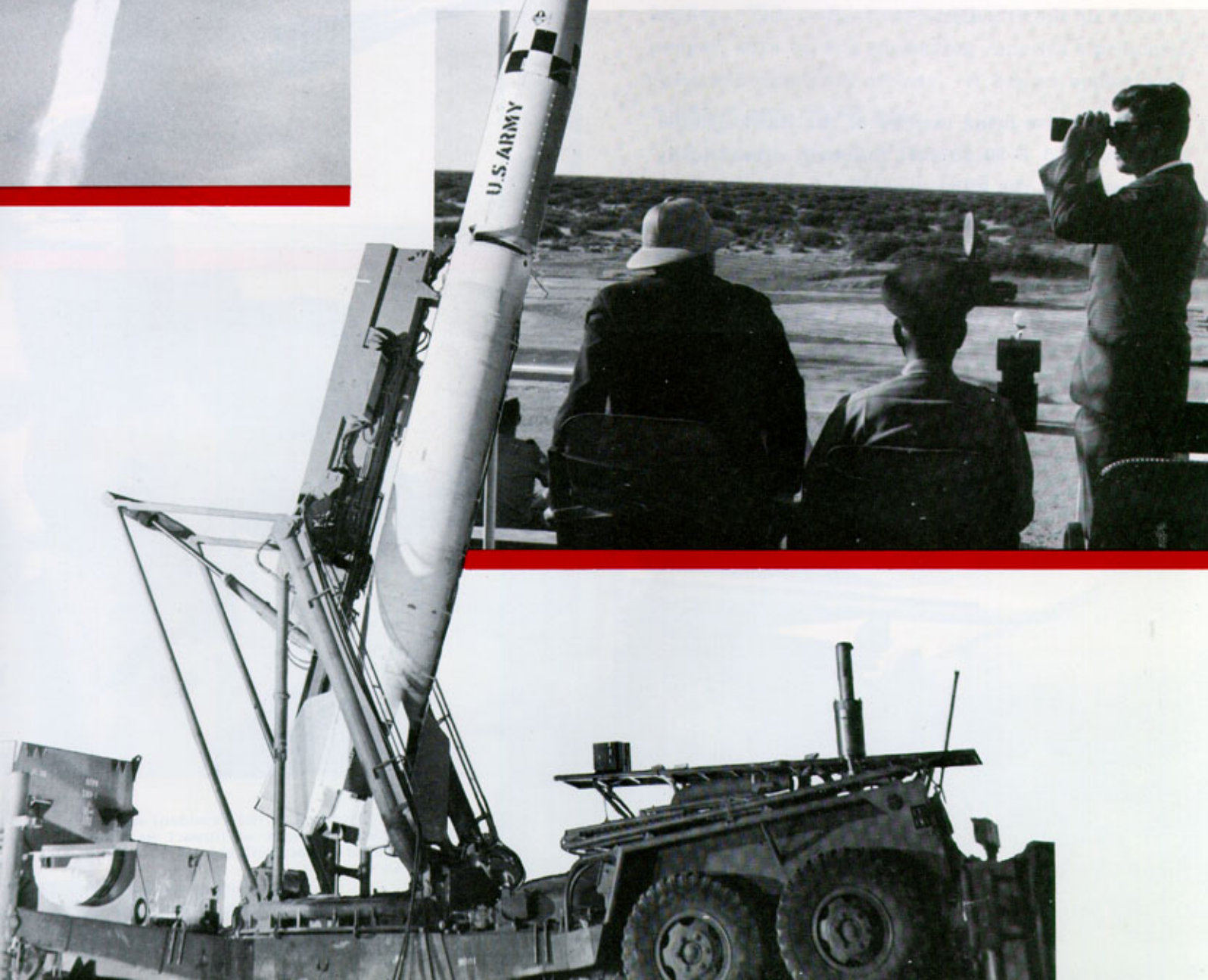
THE SERGEANT

- **TYPE:** Surface-to-surface
- **SPEED:** Supersonic
- **RANGE:** 25–75 nautical miles
- **PROPULSION:** Solid propellant
- **WARHEAD:** Nuclear or conventional
- **GUIDANCE:** Inertial
- **STATUS:** Operational



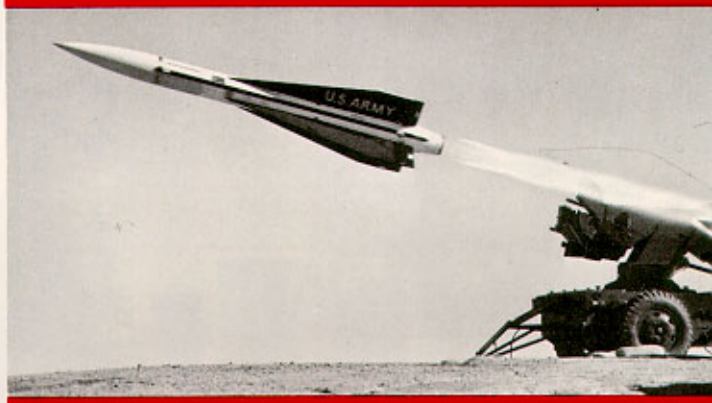
The President is keenly interested as the SERGEANT missile is fired from the left front of the stands. A second generation field artillery missile, the successor to the Corporal missile, is a sophisticated corps or army artillery support weapon.

Sergeant played a part in space history when its scaled-down motors were used in the launchings of Explorer I, the first successful free world satellite.



THE HAWK

- **TYPE:** Surface-to-air
- **SPEED:** Supersonic
- **ALTITUDE CAPABILITY:** Treetop level to over 38,000 feet
- **PROPULSION:** Solid propellant
- **WARHEAD:** Conventional
- **GUIDANCE:** Homing
- **STATUS:** Operational



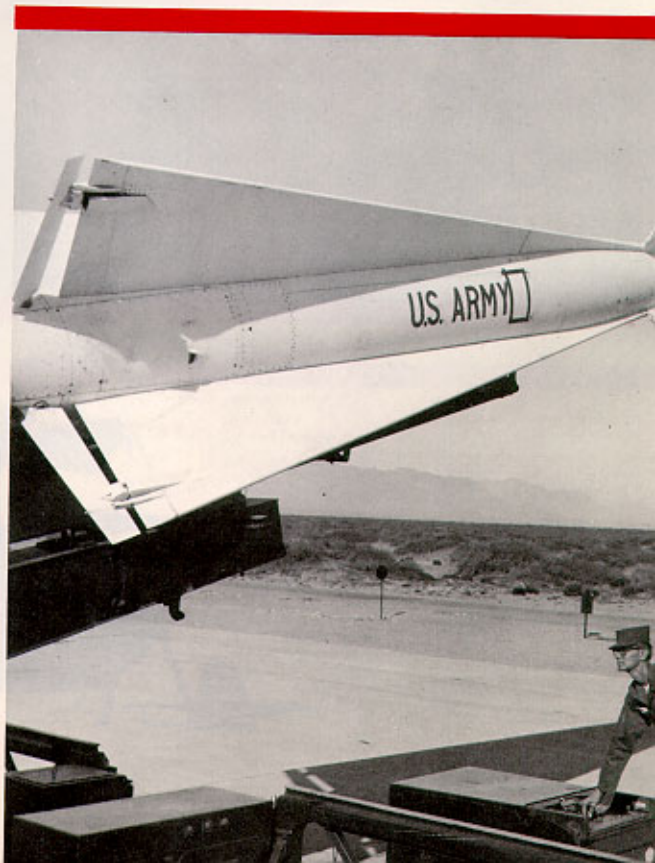
An impressive firing exercise of the Hawk against an unmanned F-80 aircraft followed, dramatically demonstrating the killer capabilities of the system. Hawk is a weapon system capable of destroying high performance aircraft at low and medium altitudes. It is a highly mobile, air-transportable, air defense weapon, tactically employed with the field army.

General Thorlin and the President share the dramatic moment of impact as the HAWK makes contact with the F-80 drone shown above.

THE NIKE HERCULES

- **TYPE:** Surface-to-air
- **SPEED:** Supersonic
- **RANGE:** In excess of 75 nautical miles
- **PROPULSION:** Solid propellant
- **WARHEAD:** Nuclear or conventional
- **GUIDANCE:** Command
- **STATUS:** Operational

The Presidential party moved to launch site 2 to witness the firing of a deadly Nike-Hercules at a target missile that was launched from an up-range facility. This is the Army's high altitude air defense weapon, now on site protecting America's principal cities and industrial centers. It has an operational ceiling of over 150,000 feet.



THE PERSHING

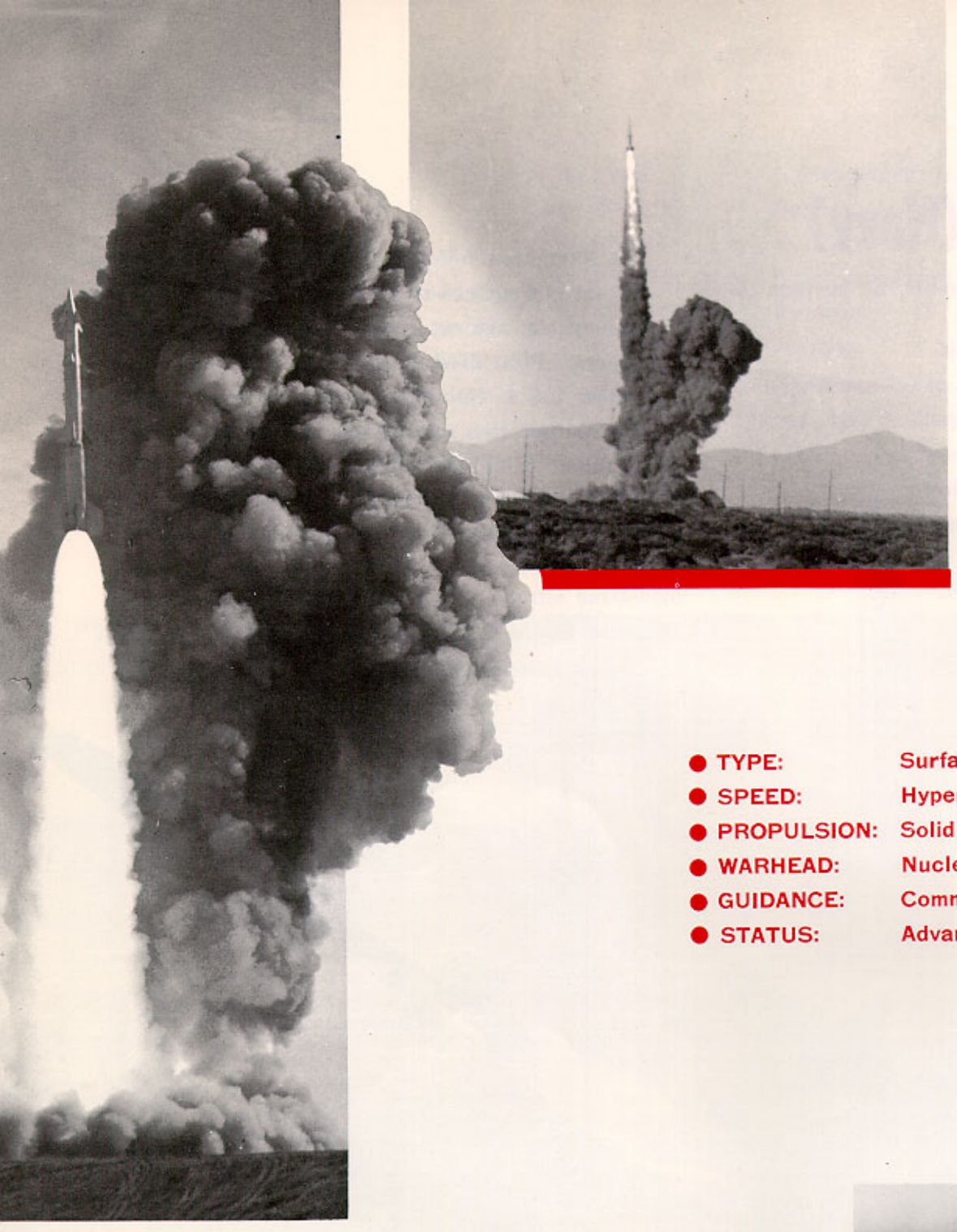
- **TYPE:** Surface-to-surface
- **SPEED:** Supersonic
- **RANGE:** 100–400 nautical miles
- **PROPULSION:** Solid propellant
- **WARHEAD:** Nuclear
- **GUIDANCE:** Inertial
- **STATUS:** Production

Although the PERSHING was not fired, the President watched with interest as the crew emplaced the vehicles and erected the missile to its 90° launch angle. This is the Army's largest ballistic missile; it is air-transportable and moves on the battlefield with the agility of conventional medium artillery. It will be used to support the field army.

THE TALOS (Navy)

- **TYPE:** Surface-to-air, or surface-to-surface
- **SPEED:** Supersonic
- **RANGE:** In excess of 65 nautical miles
- **PROPULSION:** Solid propellant and ramjet
- **WARHEAD:** Conventional or nuclear
- **GUIDANCE:** Beam riding
- **STATUS:** Operational

A Navy crew followed with a firing of the Talos. Primarily a surface-to-air missile, this system is also employable against ships or shore-bombardment targets. First fired at sea from the guided missile cruiser U.S.S. *Galveston*, and later from two of its sister ships, this missile has also been successfully launched from the nuclear powered U.S.S. *Long Beach*. Three more cruisers are being converted to use this system as their principal armament.



THE NIKE-ZEUS

- **TYPE:** Surface-to-air (anti-ICBM)
- **SPEED:** Hypersonic
- **PROPULSION:** Solid propellant
- **WARHEAD:** Nuclear
- **GUIDANCE:** Command
- **STATUS:** Advance development

The Army's display of "Missiles in Action" was concluded with a test firing of the high-speed Nike-Zeus. The Nike-Zeus is the only anti-ICBM missile system under advance development in the free world. It is designed for defense against ICBM's and intermediate range ballistic missiles launched against heavily populated areas, industrial centers, and strategic military points.

Using experience gained from the Nike-Zeus, the Army is now performing research and development on an improved ballistic missile defense system, the Nike "X".

THE PRESIDENT CONGRATULATES THE TROOPS

Immediately after the firing of the Zeus missile representative groups of personnel from HONEST JOHN, LITTLE JOHN, SERGEANT, HAWK, and PERSHING units were assembled in front of the stands where they were reviewed by the President.

The President congratulates the Commander of Troops, Lieutenant Colonel Creel . . .

. . . and troops the line.

THE SERGEANT PRESENTS THE SERGEANT TO THE PRESIDENT

Representing all Army sergeants, and specifically those in Artillery units, Sfc. Herman D. Swits, Battery B, 3d Battalion, 38th Artillery, presents the President with a model of the Sergeant missile and its launcher, as a parting gift.

VICE PRESIDENT JOHNSON RECEIVES A PAIR OF GUNS

Vice President Lyndon B. Johnson receives a plaque, commemorating the Pershing missile system, from Sfc Jimmie L. Grimes, 2d Missile Battalion, 44th Artillery, Fort Sill, Okla., representing the Pershing battalion which participated in the exercise. On the Vice President's right are Secretary of the Army, Cyrus R. Vance and Army Chief of Staff, Earle G. Wheeler.

INTERESTED OBSERVERS

Lt. Gen. Dwight E. Beach, Chief, Army Research and Development, Secretary of the Army Cyrus R. Vance, and Representative Dan Rostenkowski of Illinois, observe the missile test firings.

Among the many dignitaries in attendance were Maj. Gen. Maxwell E. Rich, Utah Adjutant General and Brig. Gen. Alma G. Wynn, Utah National Guard.

Viewing the missile firings at the left of President Kennedy are Vice President Johnson, Senator Ralph W. Yarborough of Texas, Senator J. Strom Thurmond of South Carolina, and Representative Ed Foreman of Texas.

Army Chief of Staff, Gen. Earle G. Wheeler; Presidential Military Aide, Maj. Gen. C. V. Clifton; Commanding General of the Artillery and Guided Missile School, Fort Sill, Okla., Maj. Gen. Lewis S. Griffing; Commanding General of participating firing units of the 1st Field Artillery Missile Brigade, Brig. Gen. Robert H. Safford; and Army Chief of Information, Maj. Gen. G. V. Underwood, discuss the success of the Army missile firing.

General Thorlin, on the left, discusses the missile shoot with visiting dignitaries, from left to right, C. F. Adams, president, Raytheon Co.; General Adams, Commander in Chief, US STRIKE Command; Senator Mechem of New Mexico; and General Beach, Chief of Army Research and Development.

After a classified briefing and a quick tour of a Zeus complex the President departed White Sands missile range.